

AMENDMENTS TO THE CLAIMS

The following is a complete, marked up listing of revised claims with a status identifier in parentheses, underlined text indicating insertions, and strikethrough and/or double-bracketed text indicating deletions.

1. (Currently Amended) A biosensor operating on an electrochemical detection principle, comprising:

a transducer array, containing a flexible metal/isolator composite composed of a metal layer and an isolator layer with a permanent connection between a surface of the metal surface~~layer~~ and a surface of the isolator surface~~layer~~,

the metal layer being in the form of a self-supporting metal substrate and being structured in such a manner that metal areas which are electrically isolated from one another are produced,

the isolator, located on the metal substrate, being structured in such a manner that open metal surfaces remain as sensor surfaces in the isolator surface, wherein,

the structured metal areas are contactable with, on a side facing away from or opposite the sensor surface, discrete electrodes, the ~~individual~~ metal areas each including associated individual measurement electrodes on the one hand and at least one reference electrode on the other hand.

2. (Previously Presented) The electrochemical biosensor as claimed in claim 1, wherein the isolator layer forms cavities over the sensor surfaces.

3. (Previously Presented) The electrochemical biosensor as claimed in claim 1, wherein electrical contacts are provided, with the contacts and the sensor surfaces being located on opposite sides of the metal/isolator composite.

4. (Previously Presented) The electrochemical biosensor as claimed in claim 3, wherein the contacts are fitted to the metal areas, which are exposed on both sides, directly opposite the sensor surfaces.

5. (Currently Amended) The electrochemical biosensor as claimed in claim 3, wherein the contacts are fitted to the metal areas, which are exposed on one side, such that ~~they~~ the contacts are laterally offset with respect to the sensor surfaces.

6. (Previously Presented) The electrochemical biosensor as claimed in claim 1, wherein a single sensor surface contains at least two electrically isolated metal areas.

7. (Previously Presented) The electrochemical biosensor as claimed in claim 6, wherein gaps which form additional isolator areas are formed between the two metal areas on the contact side.

8. (Previously Presented) The electrochemical biosensor as claimed in claim 7, wherein the additional isolator areas leave metal areas free for electrical contact to be made.

9. (Currently Amended) The electrochemical biosensor as claimed in claim 1, wherein the sensor surfaces are composed of a at least one of a noble metal ~~[[or]]~~and a noble metal alloy.

10. (Currently Amended) The electrochemical biosensor as claimed in claim 1, wherein the sensor surfaces are coated with at least one of a noble metal ~~[[or]]~~and a noble metal alloy.

11. (Previously Presented) The electrochemical biosensor as claimed in claim 1, wherein electrodes are provided on a graphite base.

12. (Previously Presented) The electrochemical biosensor as claimed in claim 1, wherein at least one of the sensor surfaces is coated with silver/silver chloride.

13. (Previously Presented) The electrochemical biosensor as claimed in claim 1, wherein an electrolyte is provided and wets a plurality of sensor surfaces.

14. (Previously Presented) The electrochemical biosensor as claimed in claim 1, wherein at least two sensor surfaces have voltage applicable to them.

15. (Previously Presented) The electrochemical biosensor as claimed in claim 1, wherein at least two sensor surfaces, and one sensor surface coated with silver chloride, are connectable as a three-electrode arrangement to a potentiostat, with the sensor surface coated with silver chloride being the reference electrode.

16. (Previously Presented) The electrochemical biosensor as claimed in claim 1, wherein a separate reference electrode is provided, and is immersed in an electrolyte.
17. (Previously Presented) The electrochemical biosensor as claimed in claim 16, wherein at least two sensor surfaces and the separate reference electrode are connectable to a potentiostat.
18. (Previously Presented) The electrochemical biosensor as claimed in claim 16, wherein the electrically isolated metal areas with sensor surfaces have voltage applicable to them.
19. (Previously Presented) The electrochemical biosensor as claimed in claim 16, wherein the electrically isolated metal areas of one sensor surface and the reference electrode are connectable as a three-electrode arrangement to a potentiostat.
20. (Previously Presented) The electrochemical biosensor as claimed in claim 1, wherein the cavities contain biochemical identification layers.
21. (Previously Presented) The electrochemical biosensor as claimed in claim 1, wherein the electrolyte areas in individual cavities are isolated from one another.
22. (Previously Presented) The electrochemical biosensor as claimed in claim 21, wherein a separate metal surface closes the cavities.

23. (Previously Presented) The electrochemical biosensor as claimed in claim 1, wherein the sensor surfaces have a voltage applicable to them with respect to the additional metal surface.
24. (Previously Presented) The electrochemical biosensor as claimed in claim 1, wherein one additional sensor surface is provided per cavity and is used as a reference electrode.
25. (Currently Amended) The electrochemical biosensor as claimed in claim ~~[[1]]~~22, wherein the metal surface which closes the cavities is coated with silver chloride and is used as a reference electrode.
26. (Currently Amended) The electrochemical biosensor as claimed in claim 1, wherein the sensor surfaces have ~~high~~-catalytic activity.
27. (Cancelled)
28. (Cancelled)
29. (Previously Presented) The electrochemical biosensor as claimed in claim 1, wherein electrodes are provided on a graphite base, in the form of a carbon paste electrode.

<End of Claims Listing>